

NOTICES OF NEW SPECIES OF CRUSTACEA OF WESTERN NORTH AMERICA; BEING AN ABSTRACT FROM A PAPER TO BE PUBLISHED IN THE JOURNAL OF THE SOCIETY. BY WILLIAM STIMPSON.

CHIONOCETES BEHRINGIANUS. Carapax rugose, with the prominences blunt and wart-like about the middle, but becoming sharper anteriorly and at the sides; the surface somewhat scabrous and pubescent. Channels above the postero-lateral margins broad and nearly smooth. Feet everywhere slightly pubescent; the third articles scabrous above. Those of the first pair muricate along the angles. Abdomen in the male 7-articulate, one third the width of the sternal plastron; basal articles strongly granulated; infero-lateral angles of the penultimate article somewhat produced and tumid. It differs from *C. opilio*, Kr., in the proportionally shorter feet of the male. Dredged off Cape Romanzoff by the North Pacific Expedition.

LOXORYNCHUS, (nov. gen.) Carapax pyriform, pubescent, spinous; stomachal region very full; hepatic regions small but prominent, with a principal spine at the middle. Rostrum bifid, more or less deflexed. Præorbital tooth sufficiently prominent. Orbits interrupted by a deep longitudinal sinus above and below, exposing the eyes; post-orbital spine between these fissures acute; a suborbital spine always present beneath the post-orbital. Basal article of external antennæ almost as broad as long, with a sharp spine at its external apex; — this spine, as well as the movable part of the antenna, is not quite concealed beneath the rostrum, but may be seen from above. Pincers in both male and female with their inner denticulated edges touching each other throughout their length. Feet of the second pair slightly longer than the others. Abdomen of the female seven-articulate.

It differs from *Pisa* in its incomplete orbits, and broader basal article of the external antennæ; from *Chorinus* in the non-concealment of these antennæ; from *Pericera* in its movable eye-peduncles; — and though resembling these genera in general form, it differs from all in the deflection of the rostrum. The greater size of the rostrum, and less exposure of the antennæ, distinguish it from *Perinea*, Dana.

LOXORYNCHUS GRANDIS. Carapax warty, the warts being small and very numerous, blunt on the central portions and spine-like on the sides. Surface between the warts minutely granulated; depressions between the regions filled with short hairs. Feet mostly covered with short pubescence; those of the first pair with the fingers denticulated along the whole extent of their inner surfaces; carpus tuberculous above; third joint with four small spines along the upper margin, the largest at the articulation with the carpus. A single spine near the extremity on the third joint of the second and third pairs of feet, and a tubercle on the fourth joint. Feet of the fourth and fifth pairs smooth. Length of carapax 5.55 inch. The animal appears to have been of a rose-color when alive. Taken on the coast near San Francisco, by Lieut. Trowbridge.

RANDALLIA, (nov. gen. *Leucosiadæ*.) Carapax oval, subglobose, nearly smooth, glabrous, armed with two teeth posteriorly; pterygostomian regions angular. Front narrow, but higher or thicker than in *Persephona*, concave at the middle. Orbits three-notched. Antennary fossæ small, oblique, and very deep. Basal article of internal antennæ somewhat expanded, operculiform, completely closing the aperture of the fossa when the antenna is retracted. Fossæ not immediately bordering on the buccal margin as in *Persephona*, but separated by a considerable space, so that the epistoma presents much greater surface than is usual in the family. External maxillipeds and feet as in *Persephona*.

R. ORNATA. *Iliia ornata*, Randall, Jour. Acad. Nat. Sci., VIII. 129. *Guaia ornata*, Gibbes, Proc. Am. Assoc. 1850, p. 186.

HIPPA ANALOGA. *H. emerita*, De Saussure, Rev. et Mag. Zool., V. 367. *H. talpoides*, Dana, Proc. Phil. Acad., VII. 175. (non Say.) Taken in considerable numbers on the coast of California, by Mr. Samuels. A careful comparison shows constant differences between this species and that of the Eastern coast, which will be fully enumerated in my forthcoming paper in the Journal.

PORCELLANA RUPICOLA. Moderately depressed, without spines; front triangular, considerably deflected, with a blunt extremity, and a notch or groove at the base separating it from

the orbit. Ocular peduncles broad, eyes small. Superior margin of orbit concave. External antennæ one and a half times as long as the carapax, flagella with few setæ, some of which are twice as long as the width of the flagellum. Anterior feet large, broad; margins smooth; carpus conspicuously granulated above, and scabrous on its infero-exterior surface; pincers smooth, with uncinatè extremities. Second, third, and fourth pairs of feet with tufts of hairs on the fifth joints and tarsi. Color dark purplish-red. Length of carapax, 0.8 inch. Its affinities are with *P. valida*, *violacea*, and *granulosa*. It is very common among the rocks of the Californian coast.

EUPAGURUS SAMUELIS. Front acute at the middle. Outer antennæ articulated at the extreme antero-exterior corners of the carapax; extremity of terminal article of peduncle reaching much beyond the eyes. Anterior feet differing much in size, the right being much the longer and stouter; carpus and hand granulated; larger hand nearly twice as long as broad; finger less than half as long as the hand, with a slight crest not conspicuously denticulated. Feet of the second and third pairs very slender, somewhat hairy; the right foot of the second pair longer than that of the first. Length, 0.75 inch. Taken at Tomales Bay, by Mr. Samuëls.

EUPAGURUS TURGIDUS. Carapax rough, somewhat hairy; front broad, acute at the middle and on each side between the bases of the eye-peduncles and the outer antennæ. Antennæ very hairy, inner ones three fourths as long as the outer ones, which are shorter than the carapax; eyes reaching the extremity of the peduncle of the outer antennæ. Anterior feet equal, much shorter than those of the second pair; covered above with short spines and tufts of long hair; hands short and very thick, strongly tumid below; finger about half as long as the hand. Feet of second and third pairs nearly equal, spinulose and very hairy throughout their length. Tarsi with corneous tips. Length, three inches. Differs from the other Oregon species by the hairiness of its tarsi. Taken in Puget Sound, by Dr. Suckley.

CALLIANASSA LONGIMANA. This species is closely allied to *C. Californiensis*, Dana, but is larger, more slender, the outer

maxillipeds less broad, and the greater foot of the anterior pair proportionably much longer, narrower, and less hairy. The carpus is shorter than the body of the hand, while in *C. Californiensis* it is longer. In the smaller hand the finger and thumb are equal in length. In *C. gigas*, the hand is much shorter and stouter than in either of the other species. *C. longimana* is found abundantly in Puget Sound, whence specimens were sent by Dr. Suckley.

ASTACUS NIGRESCENS. Margins of the rostrum nearly parallel, denticulated with five or six small sharp spines on either side; the two anterior thoracic spines rather long. Dorsal area between the branchial regions as wide as in *A. Gambellii*, from which this species differs in its smaller and more slender hands, which are also without pubescence. The lateral angles of the abdominal segments are sharp, and the caudal segment has two slender spines on each side. Color, blackish. Length, three inches. It is common in the vicinity of San Francisco.

ASTACUS TROWBRIDGII. A large species having a general resemblance to *A. leniusculus*, Dana, from which it differs in its much less prominent thoracic spines, the posterior pair of which are here scarce perceptible. Rostrum broad, with smooth, nearly parallel sides; terminal spine rather short. Hands large and broad, of a reddish olive color, darker than that of the body. Length, five inches. Found in the Columbia River, above Astoria, by Lieut. Trowbridge.

ASTACUS KLAMATHENSIS. Thorax smooth above, rather contracted in front. Rostrum subtriangular, but with the lateral teeth sufficiently distinct, sides smooth, converging. Posterior pair of thoracic spines obsolete. Hands small; dentation of inferior edge of arm slight. Lateral margins of abdominal segments broadly rounded, scarcely at all angular. Color, bright yellowish white; hands tinted with bluish. Length, three inches. Found in Klamath Lake, by Dr. Newberry.

PANDALUS DANÆ. Thorax glabrous. Twelve spines on the dorsal crest and rostrum, the posterior one being at about the middle of the carapax. Rostrum smooth above toward the trifold

apex, and six-toothed below, the basal tooth large and much curved. Feet spinulose; the spinules on the third joint few and distant. Length, 2.5 inches. Dredged in Puget Sound, by Capt. Murden.

IDOTEA RESECATA. Slender, convex above, thorax concave below. Greatest breadth at the sixth thoracic segment. Outer antennæ reaching the fourth thoracic segment; peduncle rather stout; flagellum 17-articulate. Basal article of inner antennæ suborbicular, much expanded. Abdomen subrectangular, nearly twice as long as broad; posterior extremity with a deep concavity, terminating on either side in a sharp angular projection or spine. The first and second segments of abdomen sufficiently well marked, the third also distinct on the sides;—the three occupying the anterior third of the length of the abdomen. Color greenish yellow, with a median line of dark red. Length, 1.7 in.; breadth, 0.33 in. It resembles *I. hectica* in general appearance. Dredged in Puget Sound, by Capt. Murden.

LYGIA DILATATA. Body variable in its proportions, but usually very broad; the breadth to length being often as 1:1.5. Surface granulated. Margins smooth, raised or thickened. Head with a transverse ridge between the eyes, interrupted at the middle. External antennæ reaching the sixth segment; flagellum with 14 oblong articles. Caudal appendages very short, about one fifth the length of the body; basal article as broad as long. Color, blackish. Length, 1½ inch. Found at Fort Steilacoom, Puget Sound, by Dr. Suckley.

LIVONECA VULGARIS. Variable in shape, often distorted; frequently abruptly widened at the fifth thoracic segment. Head small, wider than long; inner antennæ somewhat shorter and stouter than the outer or posterior ones. Epimeral pieces narrow, separated from the tergal piece anteriorly by a distinct suture, posteriorly by a deep incision; the point reaching the margin of the tergum in the anterior four segments, and not extending much beyond it in the posterior three. Posterior thoracic segment deeply sinuated for the reception of the middle portion of the anterior abdominal segments. Lamelliform caudal

segment always transverse in the adult. Color, yellowish-gray; posterior pair of false feet always black. Length, 1.5; breadth, 0.9 inch. Very common on fish in the San Francisco market.

SPHEROMA AMPLICAUDA. Caudal segment and posterior pair of false feet greatly expanded. Thorax with three longitudinal rows of small tubercles, those of the middle row becoming gradually larger posteriorly, the terminal one subspiniform, pointing backward. Abdominal plate large, forming two fifths the length of the body, triangular, terminating in an acute point. Outer lamellæ of posterior false feet very large, dilated, but not extending posteriorly beyond the extremity of the abdomen. Length, 0.25; breadth, posteriorly, 0.17 inch. Found at Tomales Bay, by Mr. Samuels.

The President called the attention of the Society to the very valuable collection of books on Natural History, from the library of the late Dr. Amos Binney, deposited with the Society for their use by Mrs. Binney, and now for the first time placed upon the shelves in the Society's rooms, as follows:—

Since the first organization of our Society, a quarter of a century, with all its varied changes, has been completed; and it is a melancholy thought, which forces itself upon me, that of those assembled here to-night, or of those who now usually meet with us, there are found so few who aided and supported it in its infancy. Some, yielding to the exacting duties of life, have withdrawn from us wholly, or in part, their active coöperation, though we trust, not their sympathy or good wishes. Others have passed away, to be with us here no more forever; among these were some of our most active associates, some of our most disinterested friends. We hold in grateful remembrance the names of Greenwood, Gay, Greene, Teschemacher, Harris, Burnet, Warren. Each in his own way contributed to our progress, and is associated with our history.

But there was one to whose thoughts our Society and its concerns were always a welcome subject,—one who laboriously coöperated with others in its organization, who, more than any